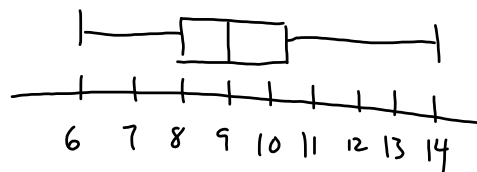
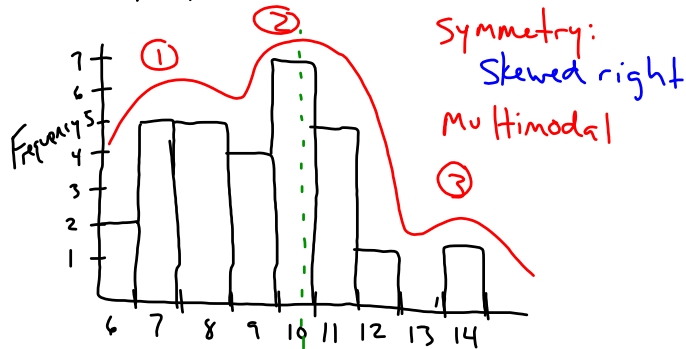


Make histogram and boxplot.

Give 5 Number Summary, IQR, Range,
Variance, standard deviation.

Data: 11, 6.5, 7, 7, 10.5, 9, 8, 10, 6, 12, 10.5,
8, 8, 10, 10, 11.5, 11, 14, 7, 9, 9, 11.5, 7, 9,
8.5, 11, 10, 10, 7.5, 8



from calculator

Min: 6
Q₁: 8
Med: 9
Q₃: 10.5
Max: 14

you calculate

IQR: 2.5
Range: 8 (just one number)
upper fence: 14.25
lower fence: 4.25

med.

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30

from calculator

$\bar{x} = 9.25$

Standard deviation (S_x) = 1.89

Variance: 3.57

you calculate

Graph Shifts:

- If we change units of a quantitative variable, we get a shift in the numbers
- Or, if we change the quantitative variable in any way, we get a shift in the values

- Assume all data from first example were men's shoe sizes.
- Redo data as if they are women's shoe sizes (add 1.5 to each size)

	Men's sizes	women's sizes
Min	6	7.5
Q_1	8	9.5
Med	9	10.5
Q_3	10.5	12
Max	14	15.5
IQR	2.5	2.5
Range	8	8
upper fence	14.25	15.75
lower fence	4.25	5.75
\bar{x}	9.25	10.75
Standard dev.	1.89	1.89
Variance	3.57	3.57

